INDEX

ABRAMOWITZ, A. A., F. L. HISAW, E. BOETTIGER, AND D. N. PAPANDREA. The origin of the diabetogenic hormone in the dogfish, 189.

ABRAMOWITZ, R. K., AND A. A. ABRAMOWITZ. Moulting, growth, and survival after eyestalk removal in Uca pugilator, 179.

Acetylcholine and nervous inhibition, heart of Venus mercenaria, 92.

Alkalinity, effect on mutual influences determining developmental axis in Fucus eggs, 407.

Ambystoma, larval, ciliate protozoön parasitic in central nervous system of, 283.

Arbacia punctulata, development of half-eggs, by centrifuging after fertilization, and parthenogenetic merogony, 412.

—— ——, method of producing twins, triplets, and quadruplets, and their development, 202.

Axis, developmental, as affected by shape, in Fucus eggs, 111.

——, ——, in Fucus eggs, effect of alkalinity on mutual influences determining, 407.

BACTERIA, oxygen consumption, in lake water, factors influencing, 388.

BARNES, T. CUNLIFFE. Experiments on Ligia in Bermuda, VII, 35.

BARTH, L. G. The relation between oxygen consumption and rate of regeneration, 366.

BODINE, JOSEPH HALL, L. D. CARLSON AND O. M. RAY. Enzymes in ontogenesis (Orthoptera). XII. Some physiological changes in eggs the embryos of which have been destroyed by x-irradiation, 437.

CABLE, R. M., AND A. V. HUNNINEN. Studies on the life history of Spelotrema nicolli (Trematoda: Microphallidae) with the description of a new microphallid Cercaria, 136.

Carassius auratus, digestive tract, 53.

CARLSON, L. D. *See* Bodine, Carlson and Ray, 437.

Cercaria, new microphallid, description of, 136.

Cetacea, larger, lungs of, compared with those of smaller species, 289.

Chaetopterus egg, effects of hydrostatic pressure on polar lobe and cleavage pattern, 103.

Chromosomes, meiotic, of male Llaveiella taenechina Morrison (Coccidae) and question of tertiary split, 312.

CLANCY, ELEANOR BELKNAP. Production of eye color hormone by the eyes of Drosophila melanogaster, 217.

CLARKE, GEORGE L. Comparative richness of zoöplankton in coastal and offshore areas of the Atlantic, 226.

Cleavage, formation of new surface in Strongylocentrotus pulcherrimus eggs, 485.

—— pattern in Chaetopterus egg, effects of hydrostatic pressure, 103.

Clymenella torquata, buds induced by implants of anterior nerve cord and neighboring tissues inserted at various levels, 298.

—— ——, buds induced by implants of posterior nerve cord and neighboring tissues, 375.

Colchicine, effect on development of fish embryo, Oryzias latipes, 29.

DAN, KATSUMA, AND JEAN CLARK DAN. Behavior of the cell surface during cleavage. III. On the formation of new surface in the eggs of Strongylocentrotus pulcherrimus, 485.

Daphnia magna eggs, growth and differentiation of, in vitro, 428.

DAWSON, ALDEN B. The pituitary gland of the African lungfish, Protopterus aethiopicus, 275.

Decomposition, aerobic, plankton materials, as affected by marine mud, 454.

Diabetogenic hormone, origin, in dogfish, 189.
Digestive tract, Carassius auratus, 53.
Dogfish, origin of diabetogenic hormone, 189.
Drosophila melanogaster, eye color hormone, production by eyes of, 217.

EARTHWORM, head regeneration in, location of factors of, 463.
Eggs, physiological changes, after destroying embryos by x-irradiation, 437.
Electrolytes, distribution in Phascolosoma muscle, 444.
Embryo, Oryzias latipes, effect of colchicine on development, 29.
Enzymes in ontogenesis (of Orthoptera), 437.
Eye color hormone, production by eyes of Drosophila melanogaster, 217.
Eye, compound, diurnal changes in electrical response, 42.
Eyestalk removal, effect on moulting, growth, and survival, Uca pugilator, 179.

FRASER, ALAN W. *See* Obreshkove and Fraser, 428.
Fucus eggs, effect of alkalinity on mutual influences determining developmental axis, 407.
—— ——, —— —— shape on developmental axis, 111.
Fundulus eggs, oxygen consumption and its inhibition in development of, 256.

GALTSOFF, PAUL S. Physiology of reproduction of Ostrea virginica, 117.
Glaucoma vorax sp. nov., influence of food on structure and growth, 9.
Growth and differentiation, Daphnia magna eggs in vitro, 428.
——, influence of food on, in Glaucoma vorax sp. nov., 9.
——, Uca pugilator, moulting and growth as affected by eyestalk removal, 179.

HADLEY, CHARLES E., AND RUTH M. CASTLE. Description of a new species of Maritrema Nicoll 1907, Maritrema arenaria, with studies of the life history, 338.
HARVEY, ETHEL BROWNE. A new method of producing twins, triplets, and quadruplets in Arbacia punctulata, and their development, 202.
——, —— ——. Development of half-eggs of Arbacia punctulata obtained by centrifuging after fertilization, with special reference to parthenogenetic merogony, 412.
Heart, acetylcholine and nervous inhibition in, Venus mercenaria, 92.
Hormone, diabetogenic, origin, in dogfish, 189.
HUGHES-SCHRADER, SALLY. The meiotic chromosomes of the male Llaveiella taenechina Morrison (Coccidae) and the question of the tertiary split, 312.
Hydrostatic pressure, effects on polar lobe and cleavage pattern in Chaetopterus egg, 103.
—— ——, high, effect on amoeboid eggs, 80.

INDUCTION of buds, by implants of anterior nerve cord and neighboring tissues inserted at various levels, in Clymenella torquata, 298.
—— —— ——, by implants of posterior nerve cord, in Clymenella torquata, 375.
Insect antennae, postural reactions, 1.

JAHN, THEODORE LOUIS, AND FREDERICK CRESCITELLI. Diurnal changes in the electrical response of the compound eye, 42.

KIDDER, G. W., D. M. LILLY AND C. L. CLAFF. Growth studies on ciliates, IV, 9.
KITCHING, J. A., AND FLOYD MOSER. Studies on a cortical layer response to stimulating agents in the Arbacia egg. IV. Response to chemical and physical agents in the absence of oxygen, and observations of the effects of low oxygen tensions and high hydrostatic pressures upon amoeboid eggs, 80.
KLEITMAN, NATHANIEL. The modifiability of the diurnal pigmentary rhythm in isopods, 403.

LIGIA, effects of sodium, ammonium and magnesium in, 35.
Llaveiella taenechina Morrison, male, meiotic chromosomes of, and question of tertiary split, 312.

LOWRANCE, E. W. *See* Whitaker and Lowrance, 407.
Lungs of larger Cetacea, compared to those of smaller species, 289.

MEGATHURA crenulata, sperm agglutination in, 159.
Maritrema arenaria, new species, description and life history, 338.
MCVAY, JEAN A., AND HELEN W. KAAN. The digestive tract of Carassius auratus, 53.
MENDOZA, GUILLERMO. The reproductive cycle of the viviparous teleost, Neotoca bilineata, a member of the family Goodeidae, 349.
Merogony, parthenogenetic, and development of half-eggs of Arbacia punctulata by centrifuging after fertilization, 412.
MOSER, FLOYD. Studies on a cortical layer response to stimulating agents in the Arbacia egg. III. Response to non-electrolytes, 68.
Moulting after eyestalk removal, in Uca pugilator, 179.
Mud, marine, effects on aerobic decomposition of plankton materials, 454.
Muscle, Phascolosoma, distribution of electrolytes, 444.
Muscles, retractor, histology, in Phascolosoma gouldii Pourtalès, 24.

NEOTOCA bilineata, reproductive cycle, 349.
Non-electrolytes, response to, in Arbacia egg, 68.

OBRESHKOVE, VASIL, AND ALAN W. FRASER. Growth and differentiation of Daphnia magna eggs in vitro, 428.
OLSON, MAGNUS. Histology of the retractor muscles of Phascolosoma gouldii Pourtalès, 24.
Ontogenesis, enzymes in (Orthoptera), 437.
Oryzias latipes, effect of colchicine on embryonic development of, 29.
Oxygen consumption and its inhibition in development of Fundulus and various pelagic fish eggs, 256.
—— ——, and rate of regeneration, 366.
—— ——, by bacteria in lake water, factors influencing, 388.
——, low tensions, effects on amoeboid eggs, 80.
Ostrea virginica, physiology of reproduction, 117.

PAINTER, BEN THOMAS. The location of factors of head regeneration in the earthworm, 463.
PEASE, DANIEL C. The effects of hydrostatic pressure upon the polar lobe and cleavage pattern in the Chaetopterus egg, 103.
Phascolosoma gouldii Pourtalès, histology of retractor muscles, 24.
—— muscle, distribution of electrolytes, 444.
PHILIPS, FRED S. Oxygen consumption and its inhibition in the development of Fundulus and various pelagic fish eggs, 256.
Pigmentary rhythm, diurnal, modifiability, in isopods, 403.
Pituitary gland of African lungfish, 275.
Plankton, aerobic decomposition, as affected by marine mud, 454.
Polar lobe, effects of hydrostatic pressure on, in Chaetopterus egg, 103.
Posterior nerve cord, buds induced by implants of, in Clymenella torquata, 375.
Postural reactions, insect antennae, 1.
PROSSER, C. LADD. Acetylcholine and nervous inhibition in the heart of Venus mercenaria, 92.
Protopterus aethiopicus, pituitary gland of, 275.
Protozoön, ciliate, parasitic in central nervous system of larval Ambystoma, 283.

QUADRUPLETS, in Arbacia punctulata, method of producing, and development, 202.

RAY, O. M. *See* Bodine, Carlson and Ray, 437.
Regeneration, head, in earthworm, location of factors of, 463.
——, rate of, and oxygen consumption, 366.
RENN, CHARLES E. Effects of marine mud upon the aerobic decomposition of plankton materials, 454.
Reproduction, physiology of, in Ostrea virginica, 117.
——, cycle of, in viviparous teleost, Neotoca bilineata, 349.
Response, electrical, in compound eye, diurnal changes, 42.

—— to chemical and physical agents in absence of oxygen, amoeboid eggs, 80.
—— to non-electrolytes, Arbacia egg, 68.

SAYLES, LEONARD P. Buds induced by implants of anterior nerve cord and neighboring tissues inserted at various levels in Clymenella torquata, 298.
——, ——. Buds induced by implants of posterior nerve cord and neighboring tissues inserted at various levels in Clymenella torquata, 375.
Shape, effect on developmental axis of Fucus egg, 111.
SHUMWAY, WALDO. A ciliate protozoön parasitic in the central nervous system of larval Ambystoma, 283.
Spelotrema nicolli (Trematoda: Microphallidae), life history studies, 136.
Sperm agglutination in keyhole limpet, 159.
STEINBACH, H. BURR. The distribution of electrolytes in Phascolosoma muscle, 444.
Strongylocentrotus pulcherrimus eggs, formation of new surface, 485.

TRIPLETS, twins and quadruplets, methods of producing, in Arbacia punctulata, and their development, 202.
TYLER, ALBERT. Sperm agglutination in the keyhole limpet, Megathura crenulata, 159.

UCA pugilator, moulting, growth and survival after eyestalk removal, 179.

VENUS mercenaria, acetylcholine and nervous inhibition of heart, 92.

WATERMAN, A. J. Effect of colchicine on the development of the fish embryo, Oryzias latipes, 29.
WHITAKER, D. M. The effect of shape on the developmental axis of the Fucus egg, 111.
——, —. —., AND E. W. LOWRANCE. The effect of alkalinity upon mutual influences determining the developmental axis in Fucus eggs, 407.
WISLOCKI, GEORGE B., AND LEONARD F. BELANGER. The lungs of the larger Cetacea compared to those of smaller species, 289.
WOLF, ERNST. Postural reactions of insect antennae, 1.

X-IRRADIATION, physiological changes in eggs, after destruction of embryos by, 437.

ZOBELL, CLAUDE E. Some factors which influence oxygen consumption by bacteria in lake water, 388.
Zoöplankton, comparative richness of, in coastal and offshore areas of the Atlantic, 226.